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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,670	11/06/2001	Lars Gertmar	66291-327-2	3830
25269	7590	10/20/2003	EXAMINER	
DYKEMA GOSSETT PLLC FRANKLIN SQUARE, THIRD FLOOR WEST 1300 I STREET, NW WASHINGTON, DC 20005			LE, DANG D	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/937,670	GERTMAR, LARS	
	Examiner	Art Unit	
	Dang D Le	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 29-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0901</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 29-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group II, there being no allowable generic or linking claim. Election was made **without** traverse in Paper dated 7/21/03.
2. Applicant's election without traverse of claims 1-28 in Paper dated 7/21/03 is acknowledged.

Drawings

3. Figures 1-9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
5. The disclosure is objected to because of the following informalities: page 36, line 36, replace "Figure 1 shows" with -- Figures 1a-1d show --.
Appropriate correction is required.
6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

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requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

7. Claim 1 is objected to because of the following informalities: delete "[(51b)]" at line 12 of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear what "the machine" in claims 2 and 3 refer to because claim 1 recites "a constant-frequency machine" at line 1, the "first electric machine" at line 4, and "the second electric rotating machine" at line 6.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-7 and 9-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hucker (4,625,160) in view of Lee et al. (4,806,841) and further in view of Radd et al. (5,097,195).

Regarding claim 1, Hucker shows a constant-frequency machine with a varying/variable speed comprising at least one first and one second electric rotating machine with a common shaft and a converter mounted on the shaft and rotating with the shaft, wherein

- The first electric machine (78), the main machine, comprises a stator and a rotor and both the stator and the rotor are arranged with ac windings (74),
- The second electric rotating machine (52), the regulating machine, comprises a stator and a rotor and that the rotor is arranged with an dc winding (56),
- The converter (64), comprising a number of branches with valves, is connected between the rotor windings of the main machine and the regulating machine and, during operation, it is arranged as a dc-to-ac converter.
- The stator winding of the main machine is connected to an ac power network (84).

Hucker does not show

- The second rotor being arranged with an ac winding,
- The converter, during starting, being arranged as an ac polyphase coupler or as an ac phase-angle/voltage regulator or as an ac short-circuit coupler and, during controlled braking and stopping, being arranged as an ac poly phase coupler or as an ac phase-angle/voltage regulator, or as an ac short-circuit coupler.

Lee et al. show the second rotor being arranged with an ac winding (14) and with the converter connected between the rotor windings of the main machine (15) and the

regulating machine (13) for the purpose of being able to ride through a short duration power outage.

Radd et al. show the converter, during starting, being arranged as an ac polyphase coupler or as an ac phase-angle/voltage regulator or as an ac short-circuit coupler for the purpose of reducing weight.

Since Hucker, Lee et al., and Radd et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to arrange the second rotor with an ac winding and to arrange the converter, during starting, as an ac polyphase coupler or as an ac phase-angle/voltage regulator or as an ac short-circuit coupler and, during controlled braking and stopping, as an ac poly phase coupler or as an ac phase-angle/voltage regulator, or as an ac short-circuit coupler as respectively taught by Lee et al. and Radd et al. for the purposes discussed above.

Regarding claims 2-7 and 9-28, it is noted that Hucker, Lee et al., and Radd et al. also show all of the limitations of the claimed invention.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hucker in view of Lee et al. and Radd et al. and further in view of Dhyanchand et al. (4,947,100).

Regarding claim 8, the machine of Hucker modified by Lee et al. and Radd et al. includes all of the limitations of the claimed invention except for the use of a transformer.

Dhyanchand et al. use the transformer (70) for the purpose of controlling the output voltage.

Since Hucker, Lee et al., Radd et al., and Dhyanchand et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use the transformer as taught by Dhyanchand et al. for the purpose discussed above.

Information on How to Contact USPTO

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

10/12/03



DANG LE
PRIMARY EXAMINER